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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,214	05/08/2001	Guido Voit	48839DIV	4235

7590 12/10/2001  
Herbert B. Keil  
KEIL & WEINKAUF  
1101 Connecticut Avenue, N.W.  
Washington, DC 20036

EXAMINER

SACKEY, EBENEZER O

ART UNIT	PAPER NUMBER
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1626

DATE MAILED: 12/10/2001

3

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/851,214

Applicant(s)  
VOIT ET AL.

Examiner  
EBENEZER SACKKEY

Art Unit  
1626



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on May 8, 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 21-25 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/622,773.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 20) ☐ Other: \_\_\_\_\_

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### **DETAILED ACTION**

Receipt of the Preliminary amendment filed on 5/08/01 is acknowledged and has been entered into the file. Claims 1-20 have been canceled and new claims 21-25 have also been entered.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

***Claim Rejections - 35 U.S.C. § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The expressions “obtainable by reduction with or without subsequent passivation of a magnetite”, “passivation” and “mixtures thereof” render the claims indefinite by placing no definite boundaries or limits on the claims. It is suggested that “obtainable” be changed to “obtained by” and mixtures thereof be changed to “mixture thereof”.

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***Claim Rejections - 35 U.S.C. § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dewdney et al., (I) or (II) or Flick et al. Cited.

Applicants claim a hydrogenation catalyst composition as shown in claim 21.

Said catalyst comprises: a) iron or a compound based on iron or mixtures thereof and b) from 0.001 to 0.3% by weight, based on a), of a promoter based on 2, 3, 4 or 5 elements selected from the group consisting of aluminum, silicon, zirconium, titanium and vanadium and c) from 0 to 0.3% by weight, based on a), of a compound based on an alkali metal or alkaline earth metal, and also d) from 0.001 to 1% by weight based on (a) of manganese.

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Dewdney et al., (I) and (II) teach hydrogenation catalyst composition which is based on iron and contains 0.001 to 0.3% by weight, based on a), of an aluminum promoter and c) from 0 to 0.3% weight, based on a) of a compound based on an alkali metal or an alkaline earth metal. See the abstracts, column 1, lines 9-17, column 2, lines 14-39 of (II).

The difference between the instant invention and Dewdney et al. is in the generic description of the catalysts and the ratios. Dewdney et al. generically teach a catalyst composition for hydrogenating dinitriles which comprises an iron-based compound, an aluminum promoter and an alkali metal or alkaline earth metal, whereas the instant invention requires an iron-based compound and 2 or more promoter elements consisting of aluminum, silicon, zirconium, titanium and vanadium and an alkali metal or alkaline. However, Flick et al. (U.S. Patent Number 5,527,946) teach the preparation of hexamethylene diamine, the use of iron based compound and silicon, titanium promoters. See the abstract, column 2, lines 33-38 Example B.

One of ordinary skill in the art would thus have been motivated to prepare known catalyst compositions, in the instantly claimed process iron

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or iron-based compounds or mixtures thereof and 2 or more promoters, (i.e., aluminum, silicon or titanium) with the expectation of improving product yield and/or purity because one would expect the substitution of one catalyst for another to result in the same product as note column 2, lines 33-38. The instantly claimed catalyst would thus have been suggested to one of ordinary skill.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to E. Sackey whose telephone number is (703) 305-6889. The examiner can normally be reached on Monday-Friday from 7:30 am to 4:30 pm.

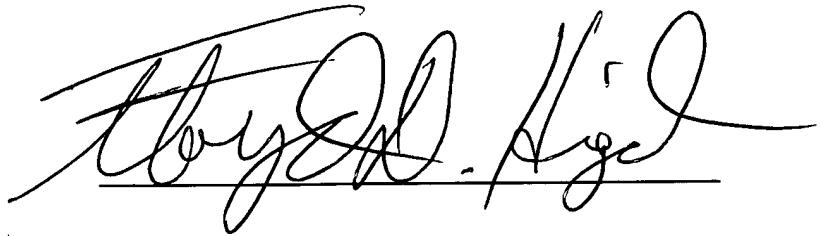
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane, can be reached on (703) 308-4532. The fax phone number for this Group is (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1235.

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EOS

December 5, 2001

A handwritten signature in black ink, appearing to read "Floyd D. Higel", written over a horizontal line.

Floyd D. Higel

Primary Patent Examiner

Art Unit 1613, Group 1600

Technology Center 1